

Amendments to the Specification:

Please replace the paragraph at beginning at page 7, line 11 with the following amended paragraph:

Still referring to **FIG. 1**, the photon beam flux monitor **130** includes three detection devices including an array of fission-fragment detectors (Parallel-Plate Avalanche Detectors or PPADs) **135** followed by two sets of scintillator paddles (telescopes) **140** and **150** with a convertor **145** in between, wherein each scintillator is sensitive to a different range of photon energies. In one embodiment, the convertor **145** is a lead (Pb) convertor. The first set of scintillator paddles **140** may detect materials of low atomic number (low Z) by resolving ~~fission-fragment~~ photon energies up to about 6 MeV, and the second set of scintillator paddles **150** may detect materials of high atomic number (high Z) by resolving photon energies exceeding about 6 MeV. In other embodiments, different energy ranges may be desirable.